ELSEVIER

Volume 315, Numbers 1–2, 9 February 2001

Journal of ALLOYS AND COMPOUNDS

www.elsevier.com/locate/jallcom

Contents

Letters

Crystal structure of the $NdGe_{1.66}$ compound L1
P. Salamakha (Ibaraki, Japan and Parma, Italy), O. Sologub (Higashi-Hiroshima, Japan), P. Demchenko (L'viv, Ukraine), L. Righi and G. Bocelli (Parma, Italy)

Crystal structure of $U_2Ni_{12}As_7$ L4
J. Stępień-Damm, D. Kaczorowski and K. Wochowski (Wroclaw, Poland)

Physics

Theory of host sensitized luminescence of rare earth doped materials. II. Effective operator formulation 1
L. Smentek (Toruń, Poland and Nashville, TN, USA) and B.A. Hess Jr., (Nashville, TN, USA)

Electrical resistivity and thermoelectric power study of the heavy-fermion compounds $(Ce_xLa_{1-x})_2Ni_3$ 11
Y. Itoh (Fukuyama, Japan), K. Umeo and H. Kadomatsu (Higashi-hiroshima, Japan)

Pressure-induced structural phase transition in a ferromagnet CrTe 16
T. Eto, M. Ishizuka, S. Endo (Osaka, Japan), T. Kanomata (Miyagi, Japan) and T. Kikegawa (Ibaraki, Japan)

Magnetic structures of $RTSb_2$ (R=Pr,Nd; T=Cu,Pd) compounds 22
M. Kolenda (Reymonta, Poland), M. Hofmann (Berlin, Germany), J. Leciejewicz (Dorodna, Poland), B. Penc, A. Szytula (Reymonta, Poland) and A. Zygmunt (Okólna, Poland)

Magnetic properties of GdT_4Al_8 and GdT_6Al_6 compounds (T=Cr, Mn, Cu) 28
N.P. Duong, J.C.P. Klaasse, E. Brück, F.R. de Boer and K.H.J. Buschow (Amsterdam, The Netherlands)

Preparation and photoelectron spectroscopy study of UN_x thin films 36
L. Black, F. Miserque, T. Gouder, L. Havela, J. Rebizant and F. Wastin (Karlsruhe, Germany)

Crystallographic and electronic structure of $Cu_xFe_{4-x}N$ 42
R.S. de Figueiredo, J. Foct (Villeneuve d'Ascq, France), A.V. dos Santos (Santo Ângelo, Brazil) and C.A. Kuhnen (Florianópolis, Brazil)

Improved equations for addressing the high pressure melting of metastable silicate perovskites 51
Z. Wang (Miami, FL, USA), B. Schott, P. Lazor (Uppsala, Sweden) and S.K. Saxena (Miami, FL, USA)

Compressibility and phase transition of δ-UO_3 under high pressure 59
T.I. Dyuzheva, N.A. Bendeliani, V.V. Brazhkin (Troitsk, Russia) and L.M. Kuznetshov (Moscow, Russia)

Correlations of the magnetic and electrical properties with the ionic radii of cations and anions for the series of ternary and quaternary spinel-type chromium compounds 62
J. Krok-Kowalski, J. Warczewski (Katowice, Poland) and K. Nikiforov (Kaluga, Russia)

Deficiency effects on the physical properties of praseodymium–strontium manganite oxides 68
W. Boujelben, A. Cheikh-Rouhou (Sfax, Tunisia), J. Pierre (Grenoble, France) and J.C. Joubert (Saint Martin d'Héres, France)

Structural chemistry, magnetism and electrical properties of binary Nd silicides 75
P. Boulet (Karlsruhe, Germany), F. Weitzer, K. Hiebl (Wien, Austria) and H. Noël (Rennes, France)

Real disordered crystal structure and Curie temperature of intermetallic compounds $Y_2Fe_{17-x}M_x$ (M=Si or Al) 82
V.I. Voronin, I.F. Berger, A.G. Kuchin (Ekaterinburg, Russia), D.V. Sheptyakov and A.M. Balagurov (Moscow, Russia)

Probing of magnetic spin clusters in the spinel oxide compound $Co_{0.8}Mn_{0.2}Al_{1.6}Fe_{0.4}O_4$ 90
S.M. Yunus, F.U. Ahmed and M.A. Asgar (Dhaka, Bangladesh)

Magnetic properties and magnetoresistance of the $DyMnB_4$ compound 95
E.M. Levin, T. Palewski, T. Mydlarz (Wroclaw, Poland), B.S. Kuzhel, Yu.B. Kuz'ma and S.I. Mikhalenko (Lviv, Ukraine)

Elsevier Science B.V.

Neutron diffraction study of $TbTi_{0.85}Mo_{0.15}Ge$ compound 100
A.V. Morozkin (Moscow, Russia), A.I. Kurbakov (Gatchina, Russia), V. Klosek (Vandoeuvre les Nancy, France) and R. Welter (Strasbourg, France)

Chemistry

Mechanochemical synthesis of MoB_2 and Mo_2B_5 104
K. Kudaka, K. Iizumi, T. Sasaki (Kanagawa, Japan) and S. Okada (Tokyo, Japan)

Substitutional chemistry in Mn_5Si_3-type scandium–main group compounds and the formation of quasibinary phases 108
P.A. Maggard, D.A. Knight and J.D. Corbett (Ames, IA, USA)

Formation of carbon supported PtRu alloys: an XRD analysis 118
E. Antolini (Genova, Italy) and F. Cardellini (Rome, Italy)

Instant synthesis of nanoscale spinel aluminates 123
T. Mimani (Bangalore, India)

Molar volume variation and ionic conduction in molten $ZnBr_2$–NaBr and $ZnBr_2$–KBr systems 129
K. Fukushima, H. Inada, Y. Nakayama and Y. Iwadate (Chiba, Japan)

Magnesium nitride chemistry 134
O. Reckeweg, J.C. Molstad and F.J. DiSalvo (Ithaca, NY, USA)

X-ray structural, vibrational and calorimetric studies of a new rubidium pentahydrogen arsenate $RbH_5(AsO_4)_2$ 143
H. Naïli and T. Mhiri (Sfax, Tunisia)

Metallurgy

Isothermal aging kinetics in the Cu–19 at.%Al alloy 150
A.T. Adorno, M.R. Guerreiro and A.V. Benedetti (Araraquara, Brazil)

New arsenides $LnAgAs_2$ (Ln=La, Ce, Pr, Nd, Sm, Gd, Tb, Dy) and their crystal structure 158
R.O. Demchyna, Yu.B. Kuz'ma and V.S. Babizhetsky (L'viv, Ukraine)

Crystal structure of $R_6Co_{2-x}Pb_{1-y}$ (R=Y, Gd, Tb, Dy, Ho, Er, Tm, Lu) and $R_6Ni_{2-x}Pb_{1-y}$ (R=Tb, Dy, Ho, Er, Tm, Lu) compounds 164
L.D. Gulay and M. Wolcyrz (Wroclaw, Poland)

Crystal structure of RCuPb (R=Y, Sm, Gd, Tb, Dy, Ho, Er, Tm, Lu) compounds 169
L.D. Gulay, J. Stępień-Damm and M. Wolcyrz (Wroclaw, Poland)

Materials Science

Effect of the substitution of Co for Fe on phase components and magnetic properties of melt-spun $Pr_9Fe_{85}B_5$ nanocomposites 174
W.-y. Zhang, A.-r. Yan, H.-w. Zhang and B.-g. Shen (Beijing, PR China)

Consolidation behavior of nanocrystalline Al–5at.%Ti alloys synthesized by cryogenic milling 178
J.H. Choi, K.I. Moon, J.K. Kim, Y.M. Oh, J.H. Suh and S.J. Kim (Seoul, South Korea)

The reduction of niobium and tantalum pentoxides by silicon in vacuum 187
A. Awasthi, Y.J. Bhatt, N. Krishnamurthy (Mumbai, India), Y. Ueda (Kyoto, Japan) and S.P. Garg (Mumbai, India)

Thermoelectric properties of $CoSb_3$ 193
Y. Kawaharada, K. Kurosaki, M. Uno and S. Yamanaka (Osaka, Japan)

Phase relations in the system La_2O_3–CaO–B_2O_3 198
Y. Zhang, X.L. Chen (Beijing, PR China), J.K. Liang (Beijing and Shengyang, PR China), Y.G. Cao and T. Xu (Beijing, PR China)

Development and characterization of an aluminum alloy containing interconnected-wires as reinforcement 203
V.V. Ganesh, P.K. Tan and M. Gupta (Singapore, Singapore)

Phase diagram of the Ag–Bi–Sb ternary system 211
S. Hassam (Marseille and Paris, France), Z. Bahari and B. Legendre (Paris, France)

The influence of high-rate quenching on the cycle stability and the structure of the AB_5-type hydrogen storage alloys with different Co content 218
C.-J. Li, F.-R. Wang, W.-H. Cheng, W. Li (Beijing, PR China) and W.-T. Zhao (Tianjin, PR China)

Ni–Al alloy as alternative cathode for molten carbonate fuel cells 224
M. Mohamedi, Y. Hisamitsu, K. Kihara, T. Kudo, T. Itoh and I. Uchida (Sendai, Japan)

Thermoelectric properties of $NaCo_2O_4$ 234
K. Kurosaki, H. Muta, M. Uno and S. Yamanaka (Osaka, Japan)

Metal oxides as catalysts for improved hydrogen sorption in nanocrystalline Mg-based materials 237
W. Oelerich, T. Klassen and R. Bormann (Geesthacht, Germany)

NdDyFeBZr high-coercivity powders prepared by intensive milling and the HDDR process 243
A. Bollero, B. Gebel, O. Gutfleisch, K.-H. Müller, L. Schultz (Dresden, Germany), P.J. McGuiness, G. Drazic and S. Kobe (Ljubljana, Slovenia)

Effects of Ti, Nb and Zr doping on thermoelectric performance of β-$FeSi_2$ 251
M. Ito, H. Nagai, S. Katsuyama and K. Majima (Osaka, Japan)

Crystal structure, electronic structure, and magnetic properties of bismuth-strontium ferrites 259
J. Li, Y. Duan, H. He and D. Song (Lanzhou, China)

Electrochemical properties of some Sb or Te based alloys for candidate anode materials of lithium-ion batteries 265
X.B. Zhao, G.S. Cao, C.P. Lv, L.J. Zhang, S.H. Hu, T.J. Zhu and B.C. Zhou (Hangzhou, PR China)

The intermediate stages of the corrosion of Nd–Fe–B powders in ambient air 270
P. Liszkowski (Katowice, Poland), K. Turek, H. Figiel and R. Gajerski (Kraków, Poland)

Mechanical alloying during cryomilling of a 5000 Al alloy/AlN powder: the effect of contamination 276
C. Goujon, P. Goeuriot (Saint Etienne, France), P. Delcroix and G. Le Caër (Nancy, France)

Corrigendum

Corrigendum to 'The influence of the kinetics of the hydrogenation of Nd–Fe–B alloys on hydrogen distribution in the alloy phase'. [J. Alloys Comp. 309 (2000) 239–243] 284
K. Turek (Kraków, Poland), P. Liszkowski (Katowice, Poland) and H. Figiel (Kraków, Poland)

Erratum

Erratum to 'OH–F disorder in non-centrosymmetric $Zn_2(BO_3)(OH)_{0.75}F_{0.25}$: ab initio structure determination and NMR study; comparison with tridymite and fluoride borates'. [J. Alloys Comp. 305 (2000) 49–57] 285
G. Corbel (Le Mans, France), E. Suard (Grenoble, France), J. Emery and M. Leblanc (Le Mans, France)

Author Index of Volume 315 297

Subject Index of Volume 315 299

Keyword list